PETITION

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Your Petitioner, Norman L. Stoakes, citizen of the United States of America and resident of the State of Nebraska, whose residence and mailing address is 10708 South 149th Street, Omaha, Nebraska 68138, prays that Letters Patent Protection be granted to him for an

IMPROVED GOLF PUTTER

as set forth in the following specification:

Background of the Invention

1. Technical Field

The present invention relates to golf clubs and, more particularly, to an improved golf putter having a club head with a body and a forward ball striking surface, the body including a weight-receiving pocket formed in an upper surface of the body with a weight mounting device mounted within the weight-receiving pocket, and at least one club head weight removably mounted within the weight-receiving pocket of the body of the club head by the weight mounting device, the club head weight including club head alignment indicia on the top face of the club head weight operative to provide visual alignment cues for ball striking, thereby increasing ball alignment and feel in the putting stroke.

2. Description of the Prior Art

It is well known that, to improve one's golf game, one must become more proficient on and around the green, which is commonly referred to as "working on the short game." One of the most critical aspects of the short game is one's proficiency with the putting stroke, which must be mastered in order to fully realize one's potential for improvement. There are hundreds of types of putters which are currently produced, each of which are designed to assist the golfer in improving his or her putting stroke. These include putters with perimeter weighting devices mounted on the head of the putter, putters with extended shafts such as belly putters and many other types of putters too numerous to discuss. However, regardless of the putter used and the player's skill level, putting essentially reduces to two specific elements, proper alignment of the putter and the proper swing speed to impart the appropriate speed to the golf ball. Of course, mastering these two elements requires a lifetime of work and, therefore, any assistance provided by the equipment itself is more than appreciated.

Many different types of putters have been proposed which attempt to provide alignment and feel-improving systems, including such patents as Hamilton, U.S. Patent No. 5,803,825, which is directed to a putter having an acoustic chamber for assisting in the correct ball striking during the putting stroke, Norman, 3, U.S. Patent No. 6,638,181, which discloses a golf club putter having a convex complexly contoured ball impact surface and a high bridge that extends lengthwise at the face of the putter to join the heel and toe, and Wu, U.S. Patent No. 6,533,680, in which the center of gravity of the putter head is shifted behind the striking

surface and the weight of the putter head is shifted to both its ends. As can be seen, numerous types of putter heads have been proposed in the prior art in attempts to address and solve the fundamental problem of putter control, yet this problem remains unsolved for many golfers.

It is well known that the weight of the putter head can make a major difference in the smoothness of the putting stroke, which can directly affect the ability of the golfer to make putts. However, the appropriate head weight for the putter should generally be determined on an individual basis, as it is clear that a 28-year old professional golfer and a 70-year old grandmother should not and would not have the same putter club head weight. There is therefore a need for an easy to use system in which the weight of the putter head may be modified or changed according to the desires, strength and skill level of the golfer, or even according to the golf course conditions and green speed.

Another desirable feature for a putter is to include various types of alignment indicia on the putter to assist in the alignment of the putter with the golf ball and desired direction of the putting stroke. There are numerous types of alignment indicia which are found in the prior art, but one of the main problems with those alignment indicia is that once they are printed on the surface of the putter head, the indicia cannot be changed or modified. Just as is the case with the weight of the putter head, the alignment indicia desired by various golfers may differ, and therefore there is a need for an easily changeable alignment indicia system which permits rapid and efficient substitution of the alignment indicia on the golf club head.

Therefore, an object of the present invention is to provide an improved golf putter.

Another object of the present invention is to provide an improved golf putter for increasing alignment and feel in the putting stroke, which includes a club head having a body and a forward ball striking surface, the club head having a weight-receiving pocket formed in an upper surface thereof with at least one club head weight removably mounted within the weight-receiving pocket, the club head weight including club head alignment indicia on the top face thereof to provide visual alignment cures for ball striking.

Another object of the present invention is to provide an improved golf putter in which the club head weights have different weights and would also include variations in heel and toe weight distribution to provide the golfer with maximum controllability of the putter head via the use of selected weight designs.

Another object of the present invention is to provide an improved golf putter in which various club head weights include various club head alignment indicia, including circles, lines, and arrows, for example, so that the golfer may use the desired alignment indicia with his or her putter head.

Another object of the present invention is to provide an improved golf putter in which the club head weight is quickly and easily removable and replaceable to permit the golfer to make adjustments to the putter head weight and alignment indicia thereon.

Another object of the present invention is to provide an improved golf putter which is U.S.G.A. approved.

Finally, an object of the present invention is to provide an improved golf putter which is relatively simple and inexpensive to manufacture and is safe, efficient, and durable in use.

Summary of the Invention

The present invention provides a golf putter for increasing alignment and feel in the putting stroke which includes a club head having a body and a forward ball striking surface and a club shaft having a handle, the shaft connected to and extending upwards from the body of the club head. A weight-receiving pocket is formed in an upper surface of the body of the club head and a weight mounting device such as a screw is mounted within the weight-receiving pocket in the body of the club head. At least one club head weight is removably mounted within the weight-receiving pocket of the body of the club head by engagement with the weight mounting device, the club head weight including club head alignment indicia on the top face of club head weight operative to provide visual alignment cues for ball striking by the forward ball striking surface.

The improved golf putter of the present invention provides several advantages over those devices found in the prior art. For example, the golfer using the present invention may quickly and easily swap out club head weights to achieve a desired head weight, thus enabling the golfer to adjust the club head weight to adjust his or her swing to various putting conditions. Also, because the alignment indicia on the top of the club head weight may be modified or changed by merely substituting a different club head weight, the individual indicia desires of the golfer may be quickly and easily accommodated. Furthermore, because the club head weight of the present invention is generally longitudinally extended, adjustments between the heel and toe weight of the putter head may be quickly and easily made by merely substituting the appropriately weighted club head weight into the weight-receiving pocket.

Finally, the relatively simple weight mounting system provided by the present invention means that the present invention is usable by golfers of all skill levels, thus enhancing their enjoyment of the game. It is thus seen that the improved golf putter of the present invention provides several substantial improvements over those devices found in the prior art.

Brief Description of the Drawings

Figure **1** is a perspective view of the improved golf putter of the present invention;

Figure **2** is a detail exploded perspective view of the improved golf putter of the present invention;

Figure **3** is a front sectional elevational view of the improved golf putter of the present invention showing the club head weight mounted within the weight-receiving pocket; and

Figures **4a**, **4b** and **4c** are detail top plan views of various alignment indicia printed on the top surface of the club head weight.

Description of the Preferred Embodiment

The improved golf putter **10** of the present invention is shown best in Figures **1-4c** as including a club head **12**, a club shaft **40** extending upwards from and connected to the club head **12** and a handle grip **42** mounted on the upper end of the club shaft **40**. The inventive elements of the present invention reside within the club head **12**, however, and it is to this area that the focus of the present disclosure will be directed.

Club head **12** would include a forward ball striking surface **14** and a body **16** situated behind the forward ball striking surface **14**, as shown best in Figures **2** and **3**. The forward ball striking surface **14** may have a milled face **15** which is milled in a particular pattern and is formed in the surface thereof to increase the frictional contact of the forward ball striking surface **14** with the golf ball, although the exact pattern and shape of the forward ball striking surface **14** may be modified or changed depending on the desires of the user of the present invention. It is further preferred that the body **16** be constructed of a metal such as aluminum, brass, copper, or any other appropriate metal as determined by the manufacturer and/or user of the present invention, and further it should be noted that the body **16** may be manufactured in various ways, including via casting, milling or any other appropriate metal body construction technique.

The body **16** of club head **12** is preferably generally trapezoidal in shape with rounded edges to increase the aesthetic appearance of the club head **12**. In the preferred embodiment, the club head **12** would have a height of approximately one-half inch to one inch, a width of approximately three to six inches, and a

length of approximately two to five inches, depending on the desires of the user of the present invention and the specific head size restrictions as mandated by the U.S.G.A..

As shown best in Figures **2** and **3**, body **16** of club head **12** would further include a threaded shaft hole **17**, a weight-receiving pocket **18** formed in the upper surface **20** of body **16** of club head **12**. It is preferred that the weight-receiving pocket **18** be generally rectangular in shape and extend from adjacent the forward ball striking surface **14** rearwards along the central axis of the body **16** of club head **12** to the rear of the body **16**, as shown best in Figure **2**. It should be noted, however, that the precise size and shape of the weight-receiving pocket **18** is not critical to the present invention so long as the weight-receiving pocket **18** is centered on body **16** to prevent lateral disruption of the center of gravity of body **16** of club head **12**, and the manner of construction of the weight-receiving pocket **18** will generally correspond to the method of construction of the body **16** itself.

Mounted within weight-receiving pocket **18** adjacent the base thereof and extending through the underside of body **16** of club head **12** are a pair of weight mounting screws **22a** and **22b** which, in the preferred embodiment, would extend upwards from the base of weight-receiving pocket **18** into the weight-receiving pocket **18** for releasably securing a club head weight within the weight-receiving pocket **18**. The functionality of the weight mounting screws **22a** and **22b** will be described later in connection with the club head weight.

The club head weight **24** of the present invention is shown best in Figures **1-5** as including a generally flat top plate **26** and a

weight mounting screw engagement bar **28** mounted on the underside of top plate **26** and depending downwards therefrom. It is preferred that the top plate **26** have approximately the same dimensions in width and length as weight-receiving pocket **18** so that when the club head weight **24** is placed within weight-receiving pocket **18**, top plate **26** is generally aligned with upper surface **20** of body **16** to create a generally smooth surface having a good aesthetic appearance which will also prevent the incursion of foreign objects into the weight-receiving pocket **18**. Additionally, the upper surface **29** of the top plate **26** may be contoured to correspond to the upper surface **20** of the body **16** of club head **12**, although this is not critical to the functionality of the invention, merely to the aesthetic appearance of the invention. It is further preferred that the weight mounting screw engagement bar **28** of club head weight **24** include a pair of threaded screw holes **30a** and **30b** into which the weight mounting screws **22a** and **22b** can be extended to releasably secure the club head weight **24** within weight-receiving pocket **18**. Of course, it should be noted that other types of weight mounting systems may be used with the present invention, such as snap-lock devices and other such mounting devices, any of which would be understood by those skilled in the art of metal connection and securement devices.

Printed or affixed on the upper surface **29** of top plate **26** of club head weight **24** is a club head alignment indicia **32** which will assist the user of the present invention in aligning the club head **12** of the improved golf putter **10** with the golf ball to be struck. The club head alignment indicia **32** may take various forms, such as linked arrows **34**, parallel lines **36**, or even a series of alignment

circles **38**, as shown in Figures **4a**, **4b** and **4c**, any of which may be used to properly align the club head **12** of the improved golf putter **10** with the golf ball to be struck. The precise and specific club head alignment indicia **32** used with the present invention may be modified or changed, however, depending on the desires of the user of the present invention, but in any case it is intended and required that the club head alignment indicia **32** be printed or affixed to the upper surface **29** of top plate **26** such that when club head weight **24** is positioned within weight-receiving pocket **18**, the club head alignment indicia **32** is aligned with the forward ball striking surface **14** to permit proper alignment of the club head **12** with the golf ball to be struck.

The improved golf putter **10** of the present invention thus provides many advantages over those devices found in the prior art. Specifically, the club head weight **24** may be made of various weight and may further include additional toe weight or additional heel weight to modify the feel of the club head **12** to accommodate individual play characteristics of the golfer, although it has been found that back weighting generally keeps the golf ball rolling truer than other types of weighting due to the improved contact characteristics upon the forward ball striking surface **14** impacting the golf ball. For instance, it has been found that club head weights **24** varying between 300 and 500 grams in weight provide accurate and desirable adjustment of the weight of the club head **12**, although variations in the specific weights used are contemplated for use with the present invention. Furthermore, the club head weight **24** may be of varying weights to accommodate differing green speeds. For example, a player playing golf at a

country club such as Olympia Fields in Chicago, site of the 2003 U.S. Open, would encounter very fast greens which would require decreased putter club head weight, whereas the same golfer playing on a municipal course in his or her hometown would encounter far slower green speeds which would require increased club head weight to maintain swing characteristics. Just as importantly, the club head alignment indicia **32** printed on the top plate **26** of club head weight **24** may be modified or changed, depending upon which alignment indicia provides the greatest confidence to the player using the improved golf putter **10** of the present invention. For example, one player may desire to use the linked arrows **34** as shown in Figure **4a** to show the precise alignment of the center of the club with the golf ball, whereas another player may desire to use the depending circle design **38** as shown in Figure **4c** which provides better visual alignment cues for that individual. Finally, because the weight mounting screws **22a** and **22b** may be quickly and easily inserted and removed from the weight mounting screw engagement bar **28** of club head weight **24**, the club head weight **24** used with the present invention may be swapped out in a very small amount of time to permit the user of the present invention to quickly adapt to changing golfing conditions, a feature not found in any of the devices shown in the prior art.

It is to be understood that numerous additions, substitutions, and modifications may be made to the improved golf putter **10** of the present invention which fall within the intended broad scope of the appended claims. For example, the precise size, shape, and construction materials used in connection with the club head **12** and club head weight **24** may be modified or changed, depending on the

performance characteristics desired by the user of the present invention. Furthermore, the club head alignment indicia **32** may be modified or changed to accommodate many different types of indicia, depending on the needs and desires of the user. Finally, the weight mounting device **22a** and **22b** and weight-receiving pocket **18** may be modified in both design and size to accommodate various other types of weights to be used with the present invention, so long as the weight being used includes club head alignment indicia printed on the top surface thereof for alignment of the golf club with the golf ball to be struck.

There has therefore been shown and described an improved golf putter **10** which accomplishes at least all of its intended objectives.